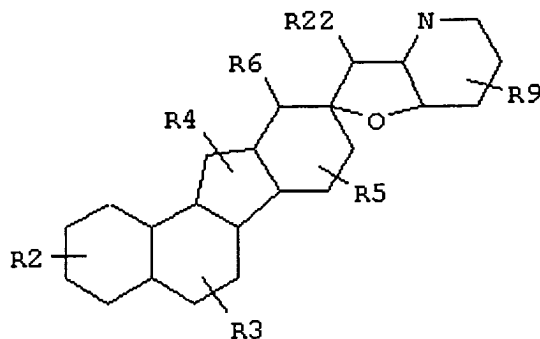


In the claims:

For the convenience of the Examiner, all claims being examined, whether or not amended, are presented below.

1-6. (Cancelled)

7. (Currently amended) A method for inhibiting unwanted hair growth or inhibiting spermatogenesis, comprising administering to the patient a composition comprising a purified steroidal alkaloid represented in the general formula (IV), or unsaturated forms thereof, and/or pharmaceutically acceptable salts thereof, ~~and/or seco-, nor- or homo-derivatives thereof:~~



Formula IV

wherein

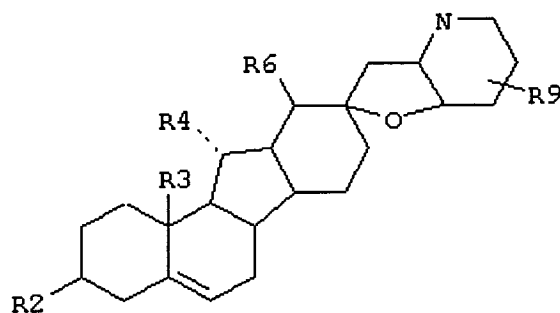
R₂, R₃, R₄, and R₅ independently for each occurrence, represent one or more substituents selected from hydrogen, halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, =O, =S, alkoxyl, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or -(CH₂)_m-R₈;

R₆ is absent or represents halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, =O, =S, alkoxyl, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or -(CH₂)_m-R₈;

R₈ represents an aryl, a cycloalkyl, a cycloalkenyl, a heterocycle, or a polycycle;

R_9 represents one or more substitutions to the ring A or B, which for each occurrence, independently represent halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, =O, =S, alkoxy, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or $-(CH_2)_m-R_8$; and R_{22} is absent or represents an alkyl, an alkoxy or -OH; and m is an integer in the range 0 to 8 inclusive.

8. (Currently amended) A method for inhibiting unwanted hair growth or inhibiting spermatogenesis, comprising administering to the patient a composition comprising a purified steroidal alkaloid represented in the general formula (V) or unsaturated forms thereof, and/or pharmaceutically acceptable salts thereof, ~~and/or seco-, nor- or homo-derivatives thereof:~~



Formula V

wherein

R_2 and R_4 independently for each occurrence, represent one or more substituents selected from hydrogen, halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, =O, =S, alkoxy, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or $-(CH_2)_m-R_8$;

R_3 independently for each occurrence, represents one or more substituents selected from hydrogen, halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, alkoxy, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls,

carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or $-(CH_2)_m-R_8$;

R_6 is absent or represents halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, $=O$, $=S$, alkoxyl, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or $-(CH_2)_m-R_8$;

R_8 represents an aryl, a cycloalkyl, a cycloalkenyl, a heterocycle, or a polycycle; ~~and~~

R_9 represents one or more substitutions to the ring A or B, which for each occurrence, independently represent halogens, alkyls, alkenyls, alkynyls, aryls, hydroxyl, $=O$, $=S$, alkoxyl, silyloxy, amino, nitro, thiol, amines, imines, amides, phosphoryls, phosphonates, phosphines, carbonyls, carboxyls, carboxamides, anhydrides, silyls, ethers, thioethers, alkylsulfonyls, arylsulfonyls, selenoethers, ketones, aldehydes, esters, or $-(CH_2)_m-R_8$; and

m is an integer in the range 0 to 8 inclusive.

9 & 10. (Cancelled)

11. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid does not substantially interfere with the biological activity of such steroids as aldosterone, androstane, androstene, androstenedione, androsterone, cholecalciferol, cholestane, cholic acid, corticosterone, cortisol, cortisol acetate, cortisone, cortisone acetate, deoxycorticosterone, digitoxigenin, ergocalciferol, ergosterol, estradiol-17- α , estradiol-17- β , estriol, estrane, estrone, hydrocortisone, lanosterol, lithocholic acid, mestranol, β -methasone, prednisone, pregnane, pregnenolone, progesterone, spironolactone, testosterone, or triamcinolone.

12. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid does not specifically bind a nuclear hormone receptor.

13. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid does not specifically bind estrogen or testosterone receptors.

14. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid has no estrogenic activity at therapeutic concentrations.

15. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid inhibits hedgehog-mediated signal transduction with an ED₅₀ of 1 mM or less.

16. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid inhibits hedgehog-mediated signal transduction with an ED₅₀ of 1 μM or less.

17. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid inhibits hedgehog-mediated signal transduction with an ED₅₀ of 1 nM or less.

18 & 19. (Cancelled)

20. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid is administered as part of a therapeutic or cosmetic application.

21. (Cancelled)

22. (Currently amended) The method of ~~any of claims 3-7~~ or ~~[[5-]]8~~, wherein the steroidal alkaloid is applied as a topical formulation.

23-26. (Cancelled)